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ABSTRACT

The general purpose of the occupational analysis is to provide workable, basic information dealing with the many and varied duties performed in the billing and bookkeeping machine operating occupation. The analysis was written in general terms due to the diversity in bookkeeping machines on the market, increasing number and variation of the tasks performed by the machines, and the varied program goals of schools teaching bookkeeping machines operation. The document opens with a brief introduction followed by a job description. The bulk of the document is presented in table form. Eight duties are broken down into a number of tasks and for each task a two-page table is presented, showing on the first page: tools, equipment, materials, objects acted upon; performance knowledge (related also to decisions, cues and errors); safety--hazard; and on the second page: science; math--number systems; and communications (perfcrmance modes, examples, and skills and concepts). The duties include: preparation, operation, and maintenance of the machines and machine area; preparation and maintenance of documents, files, and records; and operating various related office machines. A list of mental and physical attitudes needed for maximum functioning is appended. (BP)

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Occupational Analysis

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BILLING AND BOOKKEEPING MACHINE OPERATOR

Instructional Materials Laboratory
Trade and Industrial Education
The Ohio State University

5233

AN ANALYSIS OF THE BILLING AND BOOKKEEPING MACHINE OPERATING OCCUPATION

Developed By

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Occupational Analysis
E.P.D.A. Sub Project 73402
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TABLE OF CONTENTS

Foreword v

Preface vii

Acknowledgment ix

Job Description xi

Duties . . . . .

A Maintaining the Machine in Proper Working Order. 1

B Preparing Source Documents for Processing/Operations 9

C Preparing the Machine Area for Operations. 17

D Prepare the Machine for Operations 27

E Operating the Bookkeeping-Machine 41

F Closing the Machine and the Area After Operations 79

G Maintaining Files of Bookkeeping Related Records in Correct Order, with Accurate Balances 87

H Operating Various Related Office Machines. 97

Index. 107

FOREWORD

The occupational analysis project was conducted by The Instructional Materials Laboratory, Trade and Industrial Education, The Ohio State University in conjunction with the State Department of Education, Division of Vocational Education pursuant to a grant from the U.S. Office of Education.

The Occupational Analysis project was proposed and conducted to train vocational educators in the techniques of making a comprehensive occupational analysis. Instructors were selected from Agriculture, Business, Distributive, Home Economics and Trade and Industrial Education to gain experience in developing analysis documents for sixty-one different occupations. Representatives from Business, Industry, Medicine, and Education were involved with the vocational instructors in conducting the analysis process.

The project was conducted in three phases. Phase one involved the planning and development of the project strategies. The analysis process was based on sound principles of learning and behavior. Phase two was the identification, selection and orientation of all participants. The training and workshop sessions constituted the third phase. Two-week workshops were held during which teams of vocational instructors conducted an analysis of the occupations in which they had employment experience. The instructors were assisted by both occupational consultants and subject matter specialists.

The project resulted in producing one hundred two trained vocational instructors capable of conducting and assisting in a comprehensive analysis of various occupations. Occupational analysis data were generated for sixty-one occupations. The analysis included a statement of the various tasks performed in each occupation. For each task the following items were identified: tools and equipment; procedural knowledge; safety knowledge; concepts and skills of mathematics, science and communication needed for successful performance in the occupation. The analysis data provided a basis for generating instructional materials, course outlines, student performance objectives, criterion measures as well as identifying specific supporting skills and knowledge in the academic subject areas.

PREFACE

In writing an occupational analysis for the bookkeeping-machine operator, the following variables were considered:

*There is much diversity in bookkeeping-machines on the market with machines ranging from a relatively simple, mechanically programmed type to highly sophisticated machines as the Burroughs L 4000-Accounting Computer, the MCR 299 Electronic Accounting System, and the Singer 5800 Visible Record Accounting System. Prices for various machines may range from a modest $1,000 to $25,000 (or more) depending on what function the machine is designed to perform; and/or the number of its components or modules.

*There has been an increasing number of accounting tasks being performed by the various machines and there is considerable variation in the detail and clarity to which any given machine may perform.

*Schools teaching bookkeeping-machine operations have varied program goals. Some may train highly qualified operators able to work in payroll purchasing, sales, sales analysis, aging, and other accounting functions. Other schools may teach that machines do the same work manual systems do, only neater, faster, and more accurately.

In light of the above considerations it became increasingly difficult to write a highly definitive task analysis. It was decided that the analysis would be written in general terms if it was to be written within the time limit and in light of the many variables listed.

Every effort was made to limit all considerations to those tasks closely related to the operation of the bookkeeping-machine. It is sincerely hoped that this analysis will serve as a starting point from which programs unique to different schools and budgets may be developed.

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JOB DESCRIPTION

A bookkeeping-machine operator performs the following duties: prepares for processing, various business papers that are generated by a firm; operates various peripheral machines such as adding and calculating machines; cleans the machine and performs minor preventive maintenance functions. The operator also maintains accurate files of business documents and bookkeeping related records such as ledgers, journals, individual earnings record; and furnishes information and/or reports to authorized persons in verbal or written form. The operator assists in the performance of various related clerical and bookkeeping functions in an office.

Duty A Maintaining the Machine in Proper Working Order

1 Read section (s) of machine's manual related to maintaining the machine
2 Maintain proper machine environment (humidity, temperature, power source)
3 Perform preventive maintenenance

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO MAINTAINING THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual Firm's policies	Read section (s) of machine's manual related to maintaining the machine Follow all directions consistent with firm's policies on machine maintenance Monitor service agreement/contract	

DECISIONS	CUES	ERRORS
		Damage to machine and/or modular components Loss of service agreement/contract Loss of employment

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO MAINTAINING THE MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Machine's manual	Comprehension, detail/inference, definition, terminology
Speaking	Asking questions about task	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage

(TASK STATEMENT) MAINTAIN PROPER MACHINE ENVIRONMENT (HUMIDITY, TEMPERATURE, POWER SOURCE)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Auxiliary power source may be necessary from some machines Hygrometer may be necessary Thermometer may be necessary Alarms connected to the hygrometer, thermometer and power sources may be necessary	Read section(s) of machine's manual related to the environment necessary for the machine's safety and its proper functioning Monitor humidity and temperature factors, and availability of auxilary powers, in the machine's environment, if appropriate; report variance Adjust environment in accord with predetermined policies, if appropriate Unplug machine after turning it off, if required	

DECISIONS	CUES	ERRORS
Determine if environment is satisfactory for maintaining the machine's safety and proper functioning Determine if auxiliary power and/or environmental assistance is functioning properly Determine if variances should be reported	Machine's environment will vary from normal; and alarm equiped environment controls will sound alarm(s)	Loss of revenue Damage to machine and "down time" Loss of machine Loss of valuable records

(TASK STATEMENT) MAINTAIN PROPER MACHINE ENVIRONMENT (HUMIDITY, TEMPERATURE, POWER SOURCE)

SCIENCE	MATH – NUMBER SYSTEMS
Temperature and humidity critical to machines effectiveness A constant power source may be necessary for the continuous efficient operation of some machines Behavioral science (see index)	Coding - must understand how to recognize unacceptable reading on charts and/or gauges related to maintaining proper machine environment: hygrometer, thermometer and availability of auxiliary power

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Interpreting gauges related to environmental factors	Visual analysis, memory, describing, logic, detail/inference, color discrimination, recognition of symbols codes and emblems
Speaking	Reporting environmental problem	Terminology/general vocabulary, appropriate diction, implying, enunciation, clarity of expression, logic, usage
Reading	Machine's manual	Comprehension, detail/inference, description of mechanism, definition, terminology
Listening	Emerging instruction	Auditory discrimination, discrimination facts from non-facts, concentration, logic, work decinition, noise discrimination

(TASK STATEMENT) PERFORM PREVENTIVE MAINTENANCE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Tools (all must be nonmagnetizeable, if available) Set of screwdrivers, rubber handled Set of small wrenches - metric may be necessary Small tray to hold small tools and or parts Proper oil Material Ribbon	Read section(s) in machine's manual related to preventive maintenance. Follow directions- Understand firm's policies related to handling preventive maintenance. Follow directions Understand manufacturer's service agreement/contract Turn machine off Unplug the machine Perform examination and preventive maintenance on the machine Report usual and necessary findings to proper person Clean the machine according to directions Change the ribbon, if appropriate Cover and/or protect the machine when not in use	Turn the machine off Unplug the machine. Be sure area is dry Use proper tools for purposes they are designed Results of unsafe performance: injury and electrical shock

DECISIONS	CUES	ERRORS
Determine if machine is scheduled for preventive maintenance and/or may need it Determine if machine should be turned off and/or disconnected from power source	Schedule time arrives for preventive maintenance Suspect that a potential proble exists	Machine "down time" may result Loss of machine

(TASK STATEMENT) PERFORM PREVENTI"E MAINTENANCE

SCIENCE	MATH – NUMBER SYSTEMS
Beh-vioral Science (see index)	P-sitive rational numbers Property of comparison (=, <, >) Linear (screw and nut size)

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Asking question about task	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage
Reading	Machine's manual on task	Comprehension, detail/inference, definition, terminology
Writing	Report on having done task	Penmanship, spelling, memo format, clarity of expression, usage, reports-progress

Duty B Preparing Source Documents for Processing/Operations

1 Gather and sort source documents by types
2 Inspect source documents for completeness and/or validity
3 Add source documents by type and compare totals with such other totals, where possible to insure accuracy and/or balancing

(TASK STATEMENT) GATHER AND SORT SOURCE DOCUMENTS BY TYPES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Source documents necessary for the operations to be performed, such as: Payroll records Invoices Checks received as accounts Bills Purchase orders Deposit slips (Banking) Sorter	Locate source documents Bring source documents to sorting area Sort source documents into logically appropriate divisions and order necessary for processing Dispose, appropriately, of source documents not needed for the current operations	

DECISIONS	CUES	ERRORS
Determine type of work to be done and which source documents are needed Determine divisions and order of items to be sorted	The schedule of work to be performed by the machine Content and nature of source documents	Loss of revenue Errors in firm's books Legal problems Loss of time

(TASK STATEMENT) GATHER AND SORT SOURCE DOCUMENTS BY TYPES

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral science (see index)	Use of numbers without calculations-ordering [source documents]

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Viewing	**Determining type of source documents sorted** Hand sorting checks (banking) by color, shape, size as well as detail	Comprehension, definition, terminology, detail/inference Visual analysis, memory, description, logic, detail/inference, color discrimination, recognition of symbols, codes, and emblems

(TASK STATEMENT) INSPECT SOURCE DOCUMENTS FOR COMPLETENESS AND/OR VALIDITY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Firm's policies on inspection of source documents Adding listing machine or calculator	Read firm's policies related to task Examine source documents, while sorting them Compare source documents to firm's standards for completeness Dispose of source document that does not meet firm's standards	

DECISIONS	CUES	ERRORS
Decide if source document is to be questioned as to its completeness and/or validity Decide if source document meets firm's standards Decide to dispose of source document in accord with firm's policies or to allow it to continue on in the bookkeeping/accounting process	Items have parts missing and/or are completed incorrectly Completed source document may be forged	Loss in revenue Error in firm's books Loss of employment Legal problems

(TASK STATEMENT) INSPECT SOURCE DOCUMENTS FOR COMPLETENESS AND/OR VALIDITY

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Estimation - Comparison Compare various amounts [dollars, numbers on items, weights, etc.] on source documents with reasonable amounts in light of experience and/or firm's polices Fundamental operations (calculations) Addition Subtraction Multiplication Basic arithmetic skills and concepts [finding a percent of a number and what percent one number is of another] Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Examining source documents	**Comprehension, detail/inference, definition, terminology**
Viewing	Comparison of appearance of source document with standards	**Visual analysis, memory, description,** logic, detail/inference, color discrimination, recognition of symbols, codes and emblems

(TASK STATEMENT) ADD SOURCE DOCUMENTS BY TYPE AND COMPARE TOTALS WITH SUCH OTHER TOTALS, WHERE POSSIBLE, TO INSURE ACCURACY AND/OR BALANCING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Adding - listing machine or calculator	Run totals (''run tapes'') on source documents, by types or sub-division Compare totals with other totals where possible to insure accuracy. Find any errors that result from this comparision and correct them **Throw out task, continue inspection of source documents**	

DECISIONS	CUES	ERRORS
Decide the order totals on source documents should be run Decide if errors(s) exist; and how it or they may be corrected Decide if errors have been corrected	Total(s) of tape(s) ran on divisions and/or types of source documents equal related totals	Loss of time Error in firm's books Loss of revenue

(TASK STATEMENT) ADD SOURCE DOCUMENTS BY TYPE AND COMPARE TOTALS WITH SUCH OTHER TOTALS, WHERE POSSIBLE, TO INSURE ACCURACY AND/OR BALANCING

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Fundamental operations (calculations) Addition Subtraction Division and multiplication (for locating and testing for transpositions) Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Viewing	Amounts and monitoring the validity of the sorting process Visual verification of validity of sorting process	Comprehension, detail/inference, definition, terminology Visual analysis, memory, describing, logic, detail/inference, color discrimination, recognition of symbols, codes, and emblems

Duty C Preparing the Machine Area for Operations

1 Read section (s) of machine's manual related to preparing the machine area for operations
2 Level the machine before starting it
3 Bring files (''cans'') of records (ledgers, journals, etc.) to the work area for posting, journalizing, and/or other processing
4 Bring source documents (invoices, checks, etc.) to the work area for use in posting, journalizing, and/or other processing

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE AREA FOR OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Machine's manual	Read section(s), of machine's manual related to preparing the machine's area for operations Prepare machine area for operations, in accord with machine's manual	

DECISIONS	CUES	ERRORS
Determine what needs to be done to machine's area to prepare it for operations	Machine's manual Machine has not been run before by the operator	Improper operation of machine Errors in firm's books Machine "down time"

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE AREA FOR OPERATIONS

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Sections of machine's manual related to preparing machine for operations	Comprehension, detail/inference, description of mechanism, definition terminology

(TASK STATEMENT) LEVEL THE MACHINE BEFORE STARTING IT

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual	Read section(s) in machine's manual related to task Level the machine	

DECISIONS	CUES	ERRORS
Decide if machine needs to be leveled	Instructions for leveling the machine The machine is, or is not, level	Accuracy of operations are jeopardized Damage to machine "down time"

(TASK STATEMENT) LEVEL THE MACHINE BEFORE STARTING IT

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension, detail/inference, description of mechanism and definition, terminology
Viewing	Machine	Visual analysis, logic, detail/inference

(TASK STATEMENT) BRING FILES (''CANS'') OF RECORDS (LEDGERS, JOURNALS, ETC.) TO THE WORK AREA FOR POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Necessary files (''can'') of records needed for operations	Locate proper files Transport files to work area	

DECISIONS	CUES	ERRORS
Decide which files of ledgers, for example, are needed	Type of processing scheduled	Errors in firm's books Loss of time Loss of revenue

(TASK STATEMENT) BRING FILES (''CAN'') OF RECORDS (LEDGERS, JOURNALS, ETC.) TO THE WORK AREA FOR POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Files	Visual analysis, logic, detail/inference

(TASK STATEMENT) BRING SOURCE DOCUMENTS (INVOICES, CHECKS, ETC.) TO THE WORK AREA FOR USE IN POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Source documents which have been prepared for operations by the bookkeeping machine	Locate source document items ready for processing Take items to area of machine	

DECISIONS	CUES	ERRORS
Determine which source document items are needed at the machine Determine that source documents items needed are at machines	Schedule of work to be performed is being followed Operator understands the nature of the operations to be performed	Generation of erroneous information by the operator Loss of time and increased errors

32

(TASK STATEMENT) BRING SOURCE DOCUMENTS (INVOICE'S, CHECKS, ETC.) TO THE WORK AREA FOR USE IN POSTING, JOURNALIZING, AND/OR OTHER PROCESSING

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Source documents	Visual analysis, logic, detail/ inference

Duty D Prepare the Machine for Operations

1 Read section (s) of machine's manual related to preparing the machine for operations
2 Clear any figures in item/posting counter, if needed
3 Load the machine with proper form (s)
4 Clear the machine of any totals, or other information, not needed on the current operations
5 Place proper date in the machine
6 Verify and insure that the operational mode of the machine is consistent with current

34

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE FOR OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual	Read section(s) of machine's manual related to preparing the machine for operations Prepare the machine for operations in accord with machine's manual i.e., uncover machine, plug machine into power source, turn on machine	

DECISIONS	CUES	ERRORS
Decide what needs to be done to prepare the machine for operations	Manual instructions	Machine "down time" Errors in firm's books

(TASK STATEMENT) READ SECTION(S) OF MACHINE'S MANUAL RELATED TO PREPARING THE MACHINE FOR OPERATIONS

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Section (s) of machine's manual related to preparing machine for operations	Comprehension, detail/inference, description of mechanism, definition, terminology

(TASK STATEMENT) CLEAR ANY FIGURES IN ITEM/POSTING COUNTER, IF NEEDED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual Tools necessary to clear any figures in item/posting counter	Read section(s) in machine's manual related to counting items processed during and/or by operations Set machine to count	

DECISIONS	CUES	ERRORS
Decide if pending operations necessitates the counting of any items Decide if machine is capable of counting items Decide how to set machine for counting	Firm requires a count of items Machine is designed to count	Error in and/or an incomplete, count of items Loss of time Error in operations

(TASK STATEMENT) CLEAR ANY FIGURES IN ITEM/POSTING COUNTER, IF NEEDED

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices or mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension, detail/inference, description of mechanism, definition, terminology

(TASK STATEMENT) LOAD THE MACHINE WITH PROPER FORM(S)

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Forms necessary for pending operations such forms as Journals (of a given type) Checks Invoices Payroll register	Read section(s) in machine's manual related to loading the machine Load the machine	Keep clothing, hair, etc., trim openings and exposed moving parts of the machine Results of unsafe performance-shock and injury
DECISIONS	**CUES**	**ERRORS**
Decide which operation(s) is/are to be performed Decide which form(s) is/are to be loaded (or fed) in the machine, if any	Machine's manual	Machine may not operate with no or wrong form Loss of time Errors in firm's books Errors in operations

39

(TASK STATEMENT) LOAD THE MACHINE WITH PROPER FORM(S)

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices or mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension, detail/inference, description of mechanism, definition terminology

(TASK STATEMENT) CLEAR THE MACHINE OF ANY TOTALS, OR OTHER INFORMATION, NOT NEEDED ON THE CURRENT OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Machine manual	Read section(s) in machine's manual on clearing the machine of totals, or other information not needed for current operations Clear the machine according to instructions in the manual	

DECISIONS	CUES	ERRORS
Decide if machine needs to be cleared Decide how to clear the machine	Machine was not cleared at end of previous operations Machine's manual calls for clearing the machine	Errors in firm's books Loss of time Errors in operations

41

(TASK STATEMENT) CLEAR THE MACHINE OF ANY TOTALS, OR OTHER INFORMATION, NOT NEEDED FOR THE CURRENT OPERATION

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices or mechanial aids

A2

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Manual	Comprehension, detial/inference, description of mechanism, terminology, definition

A2

(TASK STATEMENT) PLACE PROPER DATE IN THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Whatever device, if any, prescribed by the manufacturer to change the date and/or in-put other necessary information	Set whatever dials, etc., that need to be adjusted to place the correct date and/or other necessary in-put into the operations	

DECISIONS	CUES	ERRORS
Decide if any changes in dates, etc. need to be made Decide if changes are correct	Wrong date, etc., is revealed to be in the machine's potential operations	Loss of revenue Errors in operations Errors in firm's books Loss of time Legal problems

43

(TASK STATEMENT) PLACE PROPER DATE IN THE MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices or mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Necessary in-put information	Comprehension, detail/inference, definition, terminology

(TASK STATEMENT) VERIFY AND INSURE THAT THE OPERATIONAL MODE OF THE MACHINE IS CONSISTENT WITH CURRENT OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Programing tape(s) and/or Programing card(s)	Verify type of operations to be performed Examine program(s) and/or operational mode(s) that are needed for the operations to be performed. Make sure these are used and others have been removed and/or erased Place appropriate program(s) and/or mode(s) in machine	

DECISIONS	CUES	ERRORS
Decide which operations is to be performed Decide which program(s) and/or mode(s) are needed Decide if correct program(s) and/or mode(s) are in machine	Machine may not function Machine operations are confused and/or inaccurate	Lost revenue and time Firm's books are in error Machine may be damaged Firm's records may be damaged

(TASK STATEMENT) VERIFY AND INSURE THAT THE OPERATIONAL MODE OF THE MACHINE IS CONSISTENT WITH CURRENT OPERATIONS

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Math necessary to program a given machine Use of computing devices or mechanical aids

A6

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading Viewing	Reading necessary to insure proper verification of program Examining evidence of proper program	Comprehension, detail/inference, definition, terminology Visual analysis, memory, logic, detail/inference, color discrimination, recognition of symbols, codes, emblems

A6

Duty E Operating the Bookkeeping-Machine

1 Read the section(s) of the machine's manual related to operating the machine
2 Select the proper record (for example: ledger) from the files (''can'')
3 Place the machine into proper alignment(s)/sub-mode(s) to receive the ledger on other items
4 Insert the appropriate ledger (or other item) into the machine, anually in-put data from the ledger (or other items) by using the machine(s) keyboard
5 Select the proper source document necessary for a given operation
6 Depress proper keys on the machine's keyboard, according to the figures shown on the source document(s) and the operation to be performed
7 Activate the machine to function according to its mode(s) and/or sub-mode(s); or, allow the machine to function, processing the in-put data
8 Remove the processed ledger (or other item) from the machine
9 Return the processed ledger (or other item) to its proper place in the file (''can'')
10 Place the source document aside in an appropriate place
11 Monitor all procedures and documents for errors; and, correct errors according to established procedures and policies
12 Correctly suspend operation of the machine when temporarily necessary
13 Total, or ''clear,'' the machine when last posting, journalizing and/or other operation is completed
14 Verify total(s)-resulting from ''clearing'' the machine-with total(s) on the type of source document. Verify accuracy of posting, journalizing and/or other completed operations
15 Record all figures and totals necessary, as directed
16 Use, appropriately, the count made by the counter of items/postings
17 Bundle source documents by type
18 React to safety emergencies according to established procedures

47

(TASK STATEMENT) READ THE SECTION(S) OF THE MACHINE'S MANUAL RELATED TO OPERATING THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Machine's manual	Read section(s) of machine's manual related to the operation of the machine	

DECISIONS	CUES	ERRORS
Decide to read those related sections of the machine's manual	Needing to operate a machine whose manual has not been read	Damage to machine - "down time" Loss of machine Damage to and/or loss of records of firm Loss of job

(TASK STATEMENT) READ THE SECTION(S) OF THE MACHINE'S MANUAL RELATED TO OPERATING THE MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Reading sections of manual related to machine's operations	Comprehension, detail/inference, description of mechanism, definition terminology

(TASK STATEMENT) SELECT THE PROPER RECORD (FOR EXAMPLE: LEDGER) FROM THE FILE (''CAN'')

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Ledgers and/or other items to be used in current operations	Select the proper ledger	

DECISIONS	CUES	ERRORS
Decide if proper ledger has been selected	The item is next in the file/can, etc. The source document is related to item	Errors in firm's books Errors in operations Loss of revenue Legal problems Public relations problem

(TASK STATEMENT) SELECT THE PROPER RECORD (FOR EXAMPLE: LEDGER) FROM THE FILE (''CAN'')

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of numbers without calculation-coding [maybe necessary to recognize various accounts numbers]

15

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	To select proper ledger	Comprehension, detail/inference, definition, terminology

(TASK STATEMENT) PLACE THE MACHINE INTO PROPER ALIGNMENT(S)/SUB-MODE(S) TO RECEIVE THE LEDGER OR OTHER ITEMS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
	Activate the machine so as to place it in an alignment that will receive necessary forms for the pending operations	

DECISIONS	CUES	ERRORS
Decide if machine must be placed into an alignment necessary to receive a ledger or other item	Ledger and/or other item, and/or source documents related to the current alignment of the machine	Errors in machine's operations Errors in firm's books Loss of time Damage to forms

(TASK STATEMENT) PLACE THE MACHINE INTO PROPER ALIGNMENT(S)/SUB-MODE(S) TO RECEIVE THE LEDGER OR OTHER ITEM

SCIENCE	MATH - NUMBER SYSTEMS
Behavioral Science (see index)	Use calculating devices or mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Machine	Visual analysis, detail/inference, logic, recognize symbols, codes and emblems

(TASK STATEMENT) INSERT THE APPROPRIATE LEDGER (OR OTHER ITEM) INTO THE MACHINE, ANUALLY IN-PUT DATA FROM THE LEDGER (OR OTHER ITEMS) BY USING THE MACHINE'S KEYBOARD

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Ledger and/or proper form to be inserted in machine prior to operations	Insert properly selected item into machine Dryness necessary and/or appropriate keys on the machine's keyboard(s) to in-put figures on the ledger and/or proper form	Keep clothing, hair etc., from openings and exposed moving parts of the machine Results of unsafe performance, injury and shock

DECISIONS	CUES	ERRORS
Decide where and how item is to be inserted Decide if item has been inserted properly	Machine reacts properly	Errors in firm's books Damage to records Error in operations Machine may not function

(TASK STATEMENT) INSERT THE APPROPRIATE LEDGER (OR OTHER ITEM) INTO THE MACHINE, ANUALLY IN-PUT DATA FROM THE LEDGER (OR OTHER ITEM) BY USING THE MACHINE'S KEYBOARD

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Ability to read numbers accurately so as to be able to in-put manually, those figures necessary for operations Use computing devices or mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Machine's in-put mechanism	Comprehension, detail/inference, definition, terminology

(TASK STATEMENT) SELECT THE PROPER SOURCE DOCUMENT NECESSARY FOR A GIVEN OPERATION

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Source documents i.e., Payroll records Invoices Purchase orders Checks to be paid and/or deposits to be credited (banking)	Select from the source documents at hand a given source document for an operations	

DECISIONS	CUES	ERRORS
Decide if proper source document has been selected	The type of operations to be performed related to the source document	Errors in firm's books Loss of revenue Misplaced records

(TASK STATEMENT) SELECT THE PROPER SOURCE DOCUMENT NECESSARY FOR A GIVEN OPERATION

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science(see index)	Use of numbers without calculation–coding [recognize various account numbers]

LS

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Selecting proper source document	Comprehension, detail/inference, definition, terminology

57

(TASK STATEMENT) DEPRESS PROPER KEYS ON THE MACHINE'S KEYBOARD, ACCORDING TO THE FIGURES SHOWN ON THE SOURCE DOCUMENT(S) AND THE OPERATION TO BE PERFORMED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Source document(s) Machine keyboard	Depress necessary and/or appropriate keys on the machine's keyboard(s) to in-put figures on source document(s)	

DECISIONS	CUES	ERRORS
Decide if necessary keys have been depressed	Necessary source document is ready for processing Machine receives depressing of keys, or machine reacts properly	Errors in firm's books Errors in operations Loss of revenue Public relations problems Machine may not function

8-5

(TASK STATEMENT) DEPRESS PROPER KEYS ON THE MACHINE'S KEYBOARD, ACCORDING TO THE FIGURES SHOWN ON THE SOURCE DOCUMENT(S) AND THE OPERATION TO BE PERFORMED

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Ability to read numbers accurately so as to depress proper keys on machine to in-put information from source documents Use of numbers without calculations Use of computing devices and mechanical aids

COMMUNICATIONS		
PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Machine's in-put mechanism	Comprehension, detail/inference, definition, terminology

(TASK STATEMENT) ACTIVATE THE MACHINE TO FUNCTION ACCORDING TO ITS MODE(S) AND/OR SUB-MODE(S); OR, ALLOW THE MACHINE TO FUNCTION, PROCESSING THE IN-PUT DATA

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD 60
Machine	Activate the machine Allow the machine to operate or function	Keep clothing, hair, etc., from openings and exposed moving parts of the machine Results of unsafe performance - injury

DECISIONS	CUES	ERRORS
Decide if machine is really to be activated Decide if machine is reacting properly to in-put	Machine is functioning properly in light of type of operations being performed	Machine may not operate Loss of time

09

(TASK STATEMENT) ACTIVATE THE MACHINE TO FUNCTION ACCORDING TO ITS MODE(S) AND/OR SUB-MODES; OR, ALLOW THE MACHINE TO FUNCTION, PROCESSING THE IN-PUT DATA

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

19

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Machine's activating mechanism	Comprehension, detail/inference, definition, terminology

61

(TASK STATEMENT) REMOVE THE PROCESSED LEDGER (OR OTHER ITEM) FROM THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ledger and/or proper form that is currently within the machine	Grasp and remove ejected, or partially ejected, ledger or proper form from the machine	

DECISIONS	CUES	ERRORS
Decide if machine has completed its use of, or need for, the ledger and/ or proper form it has had within it	Machine pauses Machine stops Ledger and/or proper form is ejected, or partially ejected, from the machine	Ledger and/or proper form may not be ejected proeprly Loss of time Damage to firm's records

(TASK STATEMENT) REMOVE THE PROCESSED LEDGER (OR OTHER ITEM) FROM THE MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Machine, ledger	Visual analysis, logic, detail/inference

(TASK STATEMENT) RETURN THE PROCESSED LEDGER (OR OTHER ITEM) TO ITS PROPER PLACE IN THE FILE (''CAN'')

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Processed ledger and/or proper form that has been removed from the machine	Place processed ledger and/or form into its correct place in the file	

DECISIONS	CUES	ERRORS
Decide if processed ledger and/or form has been returned correctly to its place in the file	Item returned is related to items near its place in the file	Loss of time Public relations problem

(TASK STATEMENT) RETURN THE PROCESSED LEDGER (OR OTHER ITEM) TO ITS PROPER PLACE IN THE FILE (''CAN'')

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Ledger and files	Visual analysis, logic, detail/inference

(TASK STATEMENT) PLACE THE SOURCE DOCUMENT ASIDE IN AN APPROPRIATE PLACE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Source document	Place processed source document in appropriate place	

99

DECISIONS	CUES	ERRORS
Decide if all necessary information on the given source document has been processed Decide where and in what order to place the item	All information has been used in the current operation	Errors in firm's operation Loss of time

(TASK STATEMENT) PLACE THE SOURCE DOCUMENT ASIDE IN AN APPROPRIATE PLACE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

L9

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Source document	Visual analysis, logic, detail/inference

67

(TASK STATEMENT) MONITOR ALL PROCEDURES AND DOCUMENTS FOR ERRORS; AND, CORRECT ERRORS ACCORDING TO ESTABLISHED PROCEDURES AND POLICIES

68

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
	Observe all procedures involved in processing Correct errors	

DECISIONS	CUES	ERRORS
Determine if operations are proceeding accurately toward completion	Balances of accounts seem reasonable in light of current input and operations	Loss of time and revenue Legal problems Public relations problems Errors in firm's books

(TASK STATEMENT) MONITOR ALL PROCEDURES AND DOCUMENTS FOR ERRORS; AND, CORRECT ERRORS ACCORDING TO ESTABLISHED PROCEDURES AND POLICIES

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	**Must understand transpositions and their corrections** Perform fundamental operations Addition Subtraction Multiplication Division

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Reading documents for errors	Comprehension, detail/inference, definition, terminology
Writing	Correcting errors	Penmanship, classification, spelling, description, clarity of expression, usage

69

(TASK STATEMENT) CORRECTLY SUSPEND OPERATION OF THE MACHINE WHEN TEMPORARILY NECESSARY

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Ruler (s) and/or other item (s) that may serve as appropriate markers	Turn off machine, if appropriate Leave proper marker (s) in source documents as reminder (s) as to where to resume operations	Bookkeeping machine must be turned off Results of unsafe performance - injury

DECISIONS	CUES	ERRORS
Decide if operations are to be interrupted Decide when/how to mark place in work Decide if it is necessary to turn machine off, temporarily	Work is interrupted Break time Short term problems, or considerations, demanding the operator's attention away from the machine	Loss of time and revenue Errors in firm's books Damage to records and/or machine

(TASK STATEMENT) CORRECTLY SUSPEND OPERATIONS OF THE MACHINE WHEN TEMPORARILY NECESSARY

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

12

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Viewing	Machine's control	Visual analysis, logic, detail/inference

71

(TASK STATEMENT) TOTAL, OR "CLEAR," THE MACHINE WHEN LAST POSTING, JOURNALIZING AND/OR OTHER OPERATION IS COMPLETED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD 72
Machine's manual	Read section(s) of machine's manual related to clearing the machine at end of operations Clear machine of last ledger and/or form that has been inserted for processing Activate the machine so as to cause it to total-out or clear itself of the results of operations	

DECISIONS	CUES	ERRORS
Decide if operations have been completed	Information from last source document, involved in current operations, has been used as in-put	Loss of revenue Loss of information Error in firm's book

72

(TASK STATEMENT) · TOTAL, OR ''CLEAR,'' THE MACHINE WHEN LAST POSTING, JOURNALIZING AND/OR OTHER OPERATIONS IS COMPLETED

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Machine manual	Comprehension, detail/inference, description of mechanism, definition, terminology
Viewing	Machine	Visual analysis, logic, detail/inference

(TASK STATEMENT) VERIFY TOTAL(S) - RESULTING FROM ''CLEARING'' THE MACHINE - WITH TOTAL(S) ON THE TYPE OF SOURCE DOCUMENT. VERIFY ACCURACY OF POSTING, JOURNALIZING, AND/OR OTHER COMPLETED OPERATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD 74
Tapes that show totals of source documents being processed	Compare totals resulting from the clearing operation with totals available on source documents Seek help if figures cannot be balanced	

DECISIONS	CUES	ERRORS
Decide if clearing figures balance with totals of source document Decide if assistance is needed in balancing at the end of operation	Figures for clearing are the same as those on tapes of source documents	Errors in operations Errors in firm's books Loss of time

(TASK STATEMENT) VERIFY TOTALS – RESULTING FROM ''CLEARING'' THE MACHINE – WITH TOTALS ON THE TYPE OF SOURCE DOCUMENT. VERIFY ACCURACY OF POSTING, JOURNALIZING, AND/OR OTHER COMPLETED OPERATIONS

SCIENCE	MATH – NUMBER SYSTEMS
	Understand transpositions and their correction Perform fundamental operations Addition Subtraction Multiplication Division

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Totals resulting from clearing the machine	Comprehension, detail/inference
Writing	Recording such totals as are necessary	Penmanship, classification, logic

(TASK STATEMENT) RECORD ALL FIGURES AND TOTALS NECESSARY, AS DIRECTED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Pen and/or pencil Firm's policies and procedures on recording results of operations Forms necessary for reports	Read firm's policies and procedures related to task Place results of operations on report form Report to department	

DECISIONS	CUES	ERRORS
Decide which figures and/or totals resulting from operations need to be recorded and/or reported, in light of firm's policies and procedures	Other departments need a result of operations Other operators are making reports	Errors in firm's books Loss of revenue Loss of time, by other departments Loss of job

(TASK STATEMENT) RECORD ALL FIGURES AND TOTALS NECESSARY, AS DIRECTED

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Capacity to record numerals correctly in and/or on correct report forms

77

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Placing totals on reports	Penmanship, spelling, classification, description, reports-information, clarity of expression, logic
Reading	Policies and procedures	Comprehension, logic, detail/inference, terminology

317

(TASK STATEMENT) USE, APPROPRIATELY, THE COUNT MADE BY THE COUNTER OF ITEMS/POSTINGS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Pen and pencils Forms necessary for report Firm's policies and procedures on recording results of item/posting count	Read firm's policies and procedures related to task Place necessary information in and/or on necessary reports	

DECISIONS	CUES	ERRORS
Decide which count information needs to be reported, in light of firm's policies	Other departments need the results of the count Other operators are making count report	Loss of time by other departments

(TASK STATEMENT) USE, APPROPRIATELY, THE COUNT MADE BY THE COUNTER OF ITEM POSTINGS

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Capacity to record numerals correctly in and/or report forms

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Writing	Placing totals on reports	Penmanship, spelling, classification, description, reports - information, clarity of expression, logic
Reading	Policies and procedures	Comprehension, detail/inference, logic, terminology

(TASK STATEMENT) BUNDLE SOURCE DOCUMENTS BY TYPE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY -- HAZARD
Rubber bands Source documents in area of operation	Bundle and secure source documents no longer needed in operations, those ready for returning to files and/or other departments	

DECISIONS	CUES	ERRORS
Decide if source documents are needed any longer at place of operations	All source documents needed for a given operation have been processed	Errors in firm's books Loss of revenue Misfiled records/source documents

(TASK STATEMENT) BUNDLE SOURCE DOCUMENTS BY TYPE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Separating source documents into bundles for return to files and/or delivered to other departments	Comprehension, detail/inference, Definition, terminology

81

(TASK STATEMENT) REACT TO SAFETY EMERGENCIES ACCORDING TO ESTABLISHED PROCEDURES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
See sections of machine's manual related to the task Firm's safety and emergency policies Equipment necessary and proper to meet peculiar safety and emergency needs of the firm, including proper alarms systems	Read sections of machine's manual related to task Read firm's policies related to task Follow, where possible, established procedures for handling safety emergencies Sound proper alarms	Safety rules established by the firm in light of its peculiar safety and emergency problems Use proper equipment to meet the peculiar problems in a given situation Sound proper alarms Results of unsafe performance Injurying, shock and/or death
DECISIONS	**CUES**	**ERRORS**
Decide if a given occurrance warrents Decide if there is a danger in working with the machine Decide on steps to lessen possibilities of injury and danger	Strange aromas Flames and/or sparks in operations area or in a machine Cry of pain, or call for help	Injury, shock and/or death to an operator Damage to machines and/or "down time" Loss of revenue, records, and building Loss of job

(TASK STATEMENT) REACT TO SAFETY EMERGENCIES ACCORDING TO THE ESTABLISHED PROCEDURE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Safety, policies	Comprehension, detail/inference, definition, terminology

Duty F Closing the Machine and the Area After Operations

1 Close the machine
2 Remove processed source documents to their proper storage or file locations
3 Remove the files (''cans'') of posted/processed records (for example: ledgers) to their proper storage locations

(TASK STATEMENT) CLOSE THE MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
	Turn off machine Disconnect from power source Cover machine	Area of machine should be dry Unplug machine by holding wire, not plug Results of unsafe performance-shock

DECISIONS	CUES	ERRORS
Decide if machine should be turned off and/or disconnected	Work is completed	Machine may generate unnecessary heat Damage to machine-"downtime" Loss of job

(TASK STATEMENT) CLOSE THE MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

(TASK STATEMENT) REMOVE PROCESSED SOURCE DOCUMENTS TO THEIR PROPER STORAGE OR FILE LOCATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Firm's policies and procedures relating to processed material Processed source documents	Read firm's policies to task Processed materials such as journals, and/or other source documents must to placed in their file and/or storage	
DECISIONS	**CUES**	**ERRORS**
Decide if processed materials such as journals, etc., are needed further Decide where items are to be delivered	Processed items are not needed for further processing	Loss of revenue and time in and/or by other departments Loss of records Errors in firm's books

L8

(TASK STATEMENT) REMOVE PROCESSED SOURCE DOCUMENTS TO THEIR PROPER STORAGE OR FILE LOCATIONS

SCIENCE	MATH - NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

(TASK STATEMENT) REMOVE THE FILES (''CANS'') OF POSTED/PROCESSED RECORDS (FOR EXAMPLE: LEDGERS) TO THEIR PROPER STORAGE LOCATIONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
See firm's policies relating to posted (or processed) ledgers	Read firm's policies related to task Return processed (or posted) ledgers to their normal storage location	

DECISIONS	CUES	ERRORS
Decide if processed ledgers are needed further	Processed ledgers are not needed for further processing	Loss of revenue and time and and/or by other departments

(TASK STATEMENT) REMOVE THE FILES (''CANS'') OF POSTED/PROCESSED RECORDS (FOR EXAMPLE: LEDGERS) TO THEIR PROPER STORAGE LOCATIONS

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS

Duty G **Maintaining Files of Bookkeeping Related Records in Correct Order, with Accurate Balances**

1 File and secure all material according to firm's policies
2 Report any unusual-questionable and/or potentially illegal-items of information found in the files to at least two persons
3 Re-file, correctly, material found to have been misfiled
4 Run a trial balance on ledger (s) when required and/or advisable

91

(TASK STATEMENT) FILE AND SECURE ALL MATERIAL ACCORDING TO FIRM'S POLICIES

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
File system common to the firm Firm's policies related to task as stated	Read firm's methods and/or policies of filing material File items according to firm's methods and/or policies Secure items according to policies	

DECISIONS	CUES	ERRORS
Decide if item is to be filed Decide where item is to be filed Decide if item has been filed correctly Decide if there is another item to be filed Decide if firm's need for file, for the operation, is finished Determine where to place file Decide if files are safe	Material (ledgers, journals, etc.) is not needed for processing by the machine at time Work/operations are finished	Lost business material Errors in information generated by operations Files stolen, destroyed, tampered with

(TASK STATEMENT) FILE ALL MATERIAL ACCORDING TO FIRM'S POLICIES

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	For filing by a numerical system, ordering, indexing, and/or coding may be necessary

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Material type to be filed	Comprehension, detail inference, definition
Speaking	Asking advice on filing problems	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage
Listening	Answers to advice on filing	Auditory discrimination, concentration, logic, word definition
Viewing	Item to be filed	Visual analysis, memory, describing, logic, detail and inference, color discrimination, recognization of symbols, codes

(TASK STATEMENT) REPORT ANY UNUSUAL–QUESTIONABLE AND/OR POTENTIALLY ILLEGAL–ITEMS OF INFORMATION FOUND IN THE FILES TO AT LEAST TWO PERSONS

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Firm's policies on how to handle unusual and/or sensitive information	Read firm's security policies (on handling and mishandling) for potentially sensitive information and materials Follow the firm's policies, report what may warrant reporting to at least two persons of authority	

DECISIONS	CUES	ERRORS
Decide if material or information needs to be reported Decide which persons should be informed Decide if information has been communicated to the proper persons	More than one record/ledger on a given account Items which reveal potential loss or compromise of the firm's sensitive/classified information	Conviction for a felony-public relations problems Loss of employment

REPORT ANY UNUSUAL–QUESTIONABLE AND/OR POTENTIALLY ILLEGAL–ITEMS OF INFORMATION FOUND IN THE FILES TO AT LEAST TWO PERSONS

(TASK STATEMENT)

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Listening	Instructions on sources of action to this task	Auditory discrimination, discriminate facts from non-facts, recognize opinions, word definition
Viewing	Does item in question warrant reporting	Visual analysis, memory, describing, logic, detail and inference, color discrimination, recognition of codes, symbols, and emblems
Speaking	Informing firm's management of unusual find	Terminology/general vocabulary, logic, appropriate diction, implying, enunciation, clarity of expression, usage
Reading	Firm's policies related to this task	Comprehension, detail/inference, definition, terminology
Writing	Report on an unusual item found	Penmanship, spelling, memo format, description, reports-informational, clarity of expression, logic, usage

(TASK STATEMENT) RE-FILE, CORRECTLY, MATERIAL FOUND TO HAVE BEEN MISFILED

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
File system common to the firm	Read firm's methods and/or policies of filing material Locate misfiled item Locate correct place in file for the item Place misfiled item in correct position in file	

DECISIONS	CUES	ERRORS
Decide if item has been misfiled Decide correct place for item in filing system Decide if item has been correctly re-filed	Item that may be misfiled does not resemble other items near its location (size, shape, color, etc.)	Lost business material Errors in information generated by operations

(TASK STATEMENT) RE-FILE, CORRECTLY, MATERIAL FOUND TO HAVE BEEN MISFILED

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	For filing by a numerical system, ordering, indexing and/or coding may be necessary

L6

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Determining type of source documents sorted	Comprehension, definition, detail and inference, terminology
Viewing	Hand sorting checks (banking) by color, shape, size as well as detail File all material according to policy	Visual analysis, memory, description, logic, detail and inference, color discrimination, recognition of symbols, codes, and emblems

(TASK STATEMENT) RUN A TRIAL BALANCE ON LEDGER(S) WHEN REQUIRED AND/OR ADVISABLE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Adding listing machine or calculator Firm's policies related to task	Read firm's policies related to task Acquire ledgers that are to have a trial balance made Add ledgers Compare the total of the trial balance with the total of the control account If totals do not balance, run the trial balance a second time; compare the two tapes and locate the error Correct the error Report the balancing, if necessary and/or advisable	

DECISIONS	CUES	ERRORS
Determine if trial balance is to be run Determine if trial balance equals control account Determine nature of error, if any Determine how to correct error Determine if new trial balance is necessary Determine if comparison of trial balances are in agreement Determine if error has been corrected	Control account and trial balance are not in agreement	Firm's books will be out of balance Error in trial balance may compound errors later in accounting cycle

(TASK STATEMENT) RUN A TRIAL BALANCE ON LEDGER(S) WHEN REQUIRED AND/OR ADVISABLE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Fundamental Operations Addition Subtraction Division (location of transpositions) Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Speaking	Getting assistance with task	Terminology/general vocabulary, appropriate diction, enunciation, clarity of expression, logic, usage
Reading	Firm's policies on trial balances	Comprehension, detail inference,
Writing	Finding errors	Penmanship, logic, clarity of expression
Listening	Assistance with task	Auditory discrimination, discriminate facts from non-facts, concentration, logic
Viewing	Looking for error	Visual analysis, memory, logic, detail and inference

Duty H Operating Various Related Office Machines

1 Operate a "10 key" adding-listing machine and/or calculator
2 Operate a "full key" adding-listing machine
3 Operate an alphabetic (and/or numerical) sorter
4 Operate a telephone

(TASK STATEMENT) OPERATE A "10 KEY" ADDING-LISTING MACHINE AND/OR CALCULATOR

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
10 key adding-listing machine and/or calculator Manuals for given machines	Read manuals for machines Follow directions given in manuals Practice with the machine(s)	
DECISIONS	**CUES**	**ERRORS**
Decide if machine's operations are understood	New machines are often not understood completely as to what operations may be performed on/by it	Loss of time and revenue Damage to machine Errors in firm's books

(TASK STATEMENT) OPERATE A ''10 KEY'' ADDING–LISTING MACHINE AND/OR CALCULATOR

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Ability to read numbers correctly Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Touching	Running 10-key adding machine	
Viewing	Material to be added	Visual analysis, memory, logic, recognition of symbols, codes, and emblems
Reading	The manual of a new calculator	Comprehension, detail inference, description of mechanism, definition, terminology

(TASK STATEMENT) OPERATE A "FULL KEY" ADDING-LISTING MACHINE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Full key adding-listing machine Manual(s) for a given machine(s)	Read manuals for machines Follow directions in manuals Practice with the machine(s)	

DECISIONS	CUES	ERRORS
Decide if machine(s) operations are understood	New machines operations are **not** understood completely as to what operations may be performed on/by it	Loss of time and revenue Damage to machine Errors in firm's books

(TASK STATEMENT) OPERATE A "FULL KEY" ADDING-LISTING MACHINE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Ability to read numbers correctly Use of computing devices and mechanical aids

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Touching	Run a full key adding machine	
Viewing	Material to be added	Visual analysis, memory, logic, recognition of symbols, codes, and emblems
Reading	The manual of a new calculator	Comprehension, detail/inference, description of mechanism, definition, terminology

(TASK STATEMENT) OPERATE AN ALPHABETIC (AND/OR NUMERICAL) SORTER

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY - HAZARD
Alphabetic (and/or numerical) sorter Materials to be sorted alphabetically and/or numerically	Place sorter on appropriate work surface such as a table From the material to be sorted take item by item and place each within appropriate tabs on the sorter	

501

DECISIONS	CUES	ERRORS
Decide behind which tab a given item is to be sorted	Materials are not in the order necessary for processing at the bookkeeping machine	Loss of revenue-loss of time Error in firm's books

(TASK STATEMENT) OPERATE AN ALPHABETIC (AND/OR NUMERICAL) SORTER

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Items to be sorted alphabetically and/or numerically	Comprehension, detail inference, definition, terminology

(TASK STATEMENT) OPERATE A TELEPHONE

TOOLS, EQUIPMENT, MATERIALS, OBJECTS ACTED UPON	PERFORMANCE KNOWLEDGE	SAFETY – HAZARD
Telephone Telephone book Various educational materials available from the phone company and/or the firm	Read educational material available from firm and/or telephone company Apply understandings gained Ask questions of experienced persons	

DECISIONS	CUES	ERRORS
Decide if telephone is to be more effectively and efficiently used	Communications are known to be not as productive as they might be	Loss of revenue-loss of time Errors in firm's books Legal problems Public relations problems

L01

(TASK STATEMENT) OPERATE A TELEPHONE

SCIENCE	MATH – NUMBER SYSTEMS
Behavioral Science (see index)	Ability to recognize and dial phone numbers

COMMUNICATIONS

PERFORMANCE MODES	EXAMPLES	SKILLS/CONCEPTS
Reading	Material related and necessary to operating a telephone more effectively and efficienctly	Comprehension, detail/inference, description of mechanism, definition, terminology
Speaking	To person on telephone	Terminology/general vocabulary, appropriate diction, implying, enunciation, clarity of expression, usage

INDEX

Attributes of maximum functioning capacity

Conscious awareness of the need for a balance (both mental and physical) between tension and relaxation. Relates to:

1. comfort
2. caution
3. safety
4. physical, emotional, and intellectual health

Conscious awareness of physical expressions basic to peak physical performance:

1. body rhythm
2. breathing coordinated with body movement
3. body balance and posture
4. movement from tension to relaxation and vice versa

Conscious awareness of qualities basic to optimal mental performance:

1. attention
2. observation
3. concentration
4. mental alertness
5. mental quietude
6. mental clarity
7. organization